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MEMORANDUM

TO: Karen Jurist, Remedial Project Manager
Site Cleanup Section 3, SFD-7-3
USEPA Region 9

THROUGH: Joe Eidelberg, Chemist
Quality Assurance (QA) Program, MTS-3
USEPA Region 9

JEIDELBE Digitally signed by JEIDELBE DN: cn=JEIDELBE, email=Eidelberg.Joseph@epa.gov Date: 2016.03.07 11:42:11 -08'00'

FROM: Kathy O'Brien, Project Manager
Environmental Services Assistance Team (ESAT) Region 9
ICF International

ESAT Contract No.: EP-W-13-029
Technical Direction Form No.: 10106100

DATE: September 30, 2015

SUBJECT: Review of Analytical Data, **Tier 3**

Attached are comments resulting from ESAT Region 9 review of the following analytical data:

Site:	Southern Avenue Industrial Area
Site Account No.:	09 WS QB 00
Case No.:	45436
SDG No.:	Y9XT5
Laboratory:	KAP Technologies, Inc. (KAP)
Analysis:	CLP 1,4-Dioxane by Semivolatile Selected Ion Monitoring
Samples:	16 Groundwater Samples
Collection Date:	July 23, 24, 27, and 28, 2015
Reviewer:	Santiago Lee, ESAT

EXES Data Manager has been updated; the dynamic deliverables will be regenerated upon the completion of the review for trace volatiles analysis.

If there are any questions, please contact Joe Eidelberg (QA Program/EPA) at (415) 972-3809.

Attachment

cc: Raymond Flores, CLP PO USEPA Region 6
Steve Remaley, CLP PO USEPA Region 9

CLP PO: [X] FYI [ ] Action

SAMPLING ISSUES: [ ] Yes [X] No

Data Validation Report - **Tier 3**

Case No.: 45436
SDG No.: Y9XT5
Site: Southern Avenue Industrial Area
Laboratory: KAP Technologies, Inc. (KAP)
Analysis: CLP 1,4-Dioxane by Semivolatile Selected Ion Monitoring (MA No. 2445.0)
Reviewer: Santiago Lee, ESAT
Date: September 30, 2015

I. SDG SUMMARY

For Sample Information and Laboratory Quality Control (QC), refer to EXES National Functional Guidelines (NFG) data validation reports *Analytical Sample Listing* and *Organic Analytic Sequence*.

Field QC

Field Blanks (FB):	None.
Equipment Blanks (EB):	Y9Y00 (in SDG Y9XW3).
Background Samples (BG):	None.
Field Duplicates (D1):	Y9XT6 and Y9XT7.
Field Duplicates (D2):	Y9XZ5 and Y9XZ6.

Tables

1A:	Analytical Results with Qualifications
1B:	Data Qualifier Definitions for Organic Data Review

CLP PO Action

None.

Sampling Issues

None.

Additional Comments

All standards and spiking solutions were analyzed before the expiration date.

The laboratory performed manual peak integration on chromatograms for some calibrations and samples. Manual integrations were reviewed and found to be in compliance with CLP Statement of Work (SOW) requirements.

This report was prepared in accordance with the following documents:

- *1,4,-Dioxane Analysis with Lower CRQL,* Modified Analysis 2445.0, June 2, 2015;
- *USEPA Contract Laboratory Program Statement of Work for Organics Superfund Methods, Multi-Media, Multi-Concentration*, SOM02.2, August 2014;
- *USEPA National Functional Guidelines for Superfund Organic Methods Data Review*, August 2014.

For technical definitions, refer to *Exhibit G (Glossary of Terms), USEPA Contract Laboratory Program Statement of Work for Organics Superfund Methods, Multi-Media, Multi-Concentration*, SOM02.2, August 2014.

II. VALIDATION SUMMARY

The data were evaluated based on the following parameters:

	Parameter	Acceptable	Comment
1	Data Completeness	Yes	
2	Holding Time/Preservation	Yes	
3	GC/MS Tune/GC Performance	N/A	
4	Initial Calibration	Yes	
5	Continuing Calibration Verification (CCV)	Yes	
6	Laboratory Blanks	Yes	
7	Field/Equipment Blanks	Yes	
8	Deuterated Monitoring Compounds (DMCs)	Yes	
9	Laboratory Control Samples (LCSs)	Yes	
10	Matrix Spike/Matrix Spike Duplicates (MS/MSDs)	N/A	
11	Internal Standards	Yes	
12	GPC Performance Check	N/A	
13	Compound Identification	Yes	
14	Compound Quantitation and Reported CRQLs	Yes	A
15	System Performance	Yes	
16	Field Duplicate Sample Analysis	Yes	

N/A = Not Applicable

III. VALIDITY AND COMMENTS

A. Results above the method detection limit (MDL) but below the contract required quantitation limit (CRQL) are estimated and flagged "J" in Table 1A. The results are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in analytical precision near the quantitation limit.

Lab Kap Technologies, Inc. (KAP) **SDG** Y9XT5 **Case** 45436 **Site** Southern Avenue Industrial Area **SOW** SOM02.2, MA 2445.0

Sample	Y9XT5			Y9XT6 (D1)			Y9XT7 (D1)			Y9XT8		
Location	SAIA-CPT14-60			SAIA-CPT14-76			SAIA-CPT14-75			SAIA-CPT14-90		
Type	Field_Sample			Field_Sample			Field_Sample			Field_Sample		
Matrix/Level	Water/LOW			Water/LOW			Water/LOW			Water/LOW		
% Solids/Lipids												
Units	ug/L			ug/L			ug/L			ug/L		
Compound	**Result**	**Flag**	**Com**	**Result**	**Flag**	**Com**	**Result**	**Flag**	**Com**	**Result**	**Flag**	**Com**
1,4-Dioxane	0.50	U		0.37	J	A	0.50	U		0.50	U	

Sample	Y9XW0			Y9XW2			Y9XY7			Y9XY8		
Location	SAIA-CPT14-130			SAIA-CPT15-60			SAIA-CPT19-45			SAIA-CPT19-60		
Type	Field_Sample			Field_Sample			Field_Sample			Field_Sample		
Matrix/Level	Water/LOW			Water/LOW			Water/LOW			Water/LOW		
% Solids/Lipids												
Units	ug/L			ug/L			ug/L			ug/L		
Compound	**Result**	**Flag**	**Com**	**Result**	**Flag**	**Com**	**Result**	**Flag**	**Com**	**Result**	**Flag**	**Com**
1,4-Dioxane	0.27	J	A	0.50	U		1.6			0.50	U	

Sample	Y9XY9			Y9XZ0			Y9XZ1			Y9XZ2		
Location	SAIA-CPT19-75			SAIA-CPT19-90			SAIA-CPT19-105			SAIA-CPT19-130		
Type	Field_Sample			Field_Sample			Field_Sample			Field_Sample		
Matrix/Level	Water/Trace			Water/Trace			Water/Trace			Water/Trace		
% Solids/Lipids												
Units	ug/L			ug/L			ug/L			ug/L		
Compound	**Result**	**Flag**	**Com**	**Result**	**Flag**	**Com**	**Result**	**Flag**	**Com**	**Result**	**Flag**	**Com**
1,4-Dioxane	0.50	U		0.50	U		0.50	U		0.87		

Sample	Y9XZ4			Y9XZ5 (D2)			Y9XZ6 (D2)			Y9XZ8		
Location	SAIA-CPT20-60			SAIA-CPT20-75			SAIA-CPT20-76			SAIA-CPT20-105		
Type	Field_Sample			Field_Sample			Field_Sample			Field_Sample		
Matrix/Level	Water/Trace			Water/Trace			Water/Trace			Water/Trace		
% Solids/Lipids												
Units	ug/L			ug/L			ug/L			ug/L		
Compound	**Result**	**Flag**	**Com**	**Result**	**Flag**	**Com**	**Result**	**Flag**	**Com**	**Result**	**Flag**	**Com**
1,4-Dioxane	0.62			0.35	J	A	0.42	J	A	0.50	U	

Sample	SBLK62			SBLK66								
Location												
Type	Method_Blank			Method_Blank								
Matrix/Level	Water/LOW			Water/LOW								
% Solids/Lipids												
Units	ug/L			ug/L								
Compound	**Result**	**Flag**	**Com**	**Result**	**Flag**	**Com**	**Result**	**Flag**	**Com**	**Result**	**Flag**	**Com**
1,4-Dioxane	0.50	U		0.50	U							

Com - Comments. Refer to the corresponding section in the Narrative for each letter.
D1, D2, etc. - Field Duplicate Pairs; FB - Field Blank, EB - Equipment Blank; BG - Background Sample.

TABLE 1B

DATA QUALIFIER DEFINITIONS FOR ORGANIC DATA REVIEW

The definitions of the following qualifiers are prepared according to the document, "USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review," June 2008.

U	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted Contract Required Quantitation Limit (CRQL) for sample and method.
J	The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the CRQL).
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
UJ	The analyte was not detected at a level greater than or equal to the adjusted CRQL. However, the reported adjusted CRQL is approximate and may be inaccurate or imprecise.
R	The sample results are unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.